



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/177,902 10/23/98 HOLMAN

D E-1658

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EXAMINER

CINTINS, I

ART UNIT

PAPER NUMBER

1724

DATE MAILED:

10/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/177,902

Applicant(s)
Holman et al.

Examiner
Ivars Cintins

Art Unit
1724



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 9, 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Rigby. As pointed out in the previous Office Action, Applicant has admitted that column based separations employing a valve member comprising an axially moveable solid rod are known in the art. Accordingly, claims 1-17 appear to differ from these admittedly known separation techniques by the use of a valve having a rotatable rod having a "binary" end. Rigby discloses a valve member having a binary end, which valve member is rotated to control material flow through a column chamber. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the rotatable valve member of Rigby for the axially moveable valve member of the admittedly known system depicted in Figs. 4a and 4b, since this reference valve member is capable of controlling material flow through a column chamber in substantially the same manner as the valve

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member of the admittedly known system, to produce substantially the same results.

Applicant's arguments filed August 9, 2001 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant now argues that the valve of Rigby does not have a "binary" end, because by Applicant's definition the term "binary" means that the rod end has an asymmetric feature with respect to a rotation about its longitudinal axis such that a restriction gap is present in one angular rod orientation and an unrestricted gap in another orientation. It is pointed out, however, that the stopcock of Rigby clearly has an asymmetric feature with respect to a rotation about its longitudinal axis such that a restriction gap is present in one angular rod orientation (i.e. when only a portion of the opening in the valve body is aligned with the opening in the column) and an unrestricted gap in another angular rod orientation (i.e. when the entire opening in the valve body is aligned with the opening in the column); and therefore, this secondary reference valve element is deemed to have a "binary" end, as required by the claims of this application.

Applicant also argues that the Rigby valve is designed to be fully open or fully closed, not fully open or partially obstructed. Again, this argument has been noted and carefully

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considered, but is not deemed to be persuasive of patentability. It is pointed out that since the primary reference, i.e. the admittedly known system, requires both a flowpath which is partially obstructed (see Fig. 4a) and a flowpath which is completely open (see Fig. 4b), and since the valve of Rigby is inherently capable of providing both a fully open and a partially obstructed flow path (i.e. by rotating the valve member such that only a portion of the opening in the valve body is aligned with the opening in the column), one of ordinary skill in the material handling art would have been motivated to substitute the valve member of Rigby for the axially moveable valve member of the admittedly known system depicted in Figs. 4a and 4b, for the reasons given above.

Applicant is again advised that claims 1-17 would be allowed if limited to the embodiment shown in Fig. 5c (i.e. that the matrix material is unpacked by rotating the column chamber with respect to the rod).

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly,

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THIS ACTION IS MADE FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The examiner can normally be reached on Monday through Friday from 9:30 AM to 6:00 PM.

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The fax phone numbers for this art unit are: (703) 305-3599 for "Official" faxes after Final Rejection; (703) 305-7718 for all other "Official" faxes; and (703) 305-3602 for "Draft" and other "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
October 20, 2001